

ProPhase Labs Inc. – Advanced Manufacturing Upgrades at Pharmed Targets Improved Production with Potential Near-Term Monetization; Significant Progress Across Other Business Lines, including Nebula and Equivir; Strategic Esophageal Cancer Test Commercialization Partnership Announced

ProPhase Labs Inc. (NASDAQ: PRPH)

Share Price: \$2.83

Valuation: \$21.00



Key Statistics

52 Week Range	\$2.04 – \$7.48
Avg. Volume (3 months)	33.14K
Shares Outstanding	19.08M
Market Capitalization	\$53.99M
EV/Revenue	1.9x
Cash Balance*	\$2.4M
Analyst Coverage	4

*Cash balance as of June 2024

Revenue (in \$mm)

Dec - FY	2023A	2024E	2025E
1Q	19.30	3.63	31.13
2Q	13.22	2.47	33.31
3Q	8.37	23.76	35.64
4Q	4.35	29.98	38.18
FY	45.24	59.84	138.26

EPS (in \$)

Dec - FY	2023A	2024E	2025E
1Q	0.03	(0.35)	0.12
2Q	(0.20)	(0.33)	0.13
3Q	(0.30)	0.08	0.13
4Q	(0.51)	0.11	0.14
FY	(0.98)	(0.49)	0.52

Stock Price Chart



Investment Highlights

- ProPhase Labs Projects Significant Growth for Pharmed Manufacturing Inc. Through Strategic Enhancements and New Technologies** - ProPhase Labs has recently revisited and emphasized the promising future for its CDMO subsidiary, Pharmed Manufacturing Inc. The company is anticipating significant revenue and earnings growth for the latter half of 2024 and the entire year 2025 due to strategic enhancements to its production capabilities and the introduction of new automation and energy-efficient technologies. These advancements include a liquid fill machine, and a new vacuum pump system expected to reduce water usage by over 96%, alongside a transition to 100% renewable energy usage, positioning Pharmed to cater to increasing customer demand. ProPhase anticipates that starting in Q3 2024, the projected annual revenue from just one of PMI's improved production lines will range between \$14-16 million, with pre-tax net profits expected to reach around \$5 million. This financial outlook is based solely on the performance of the first upgraded manufacturing line at PMI. Additionally, new equipment for a second lozenge manufacturing line is set to potentially double the production capabilities and introduce new product lines, particularly in the fast-growing liquid-filled lozenge market. With the introduction of equipment capable of producing liquid-filled lozenges—a rapidly growing market segment—PMI is also enhancing product flavor while maintaining therapeutic integrity. This advancement also opens opportunities for PMI to potentially grow its private label business by appealing to larger retailers looking for high-margin, value-added products. Moreover, with the scaling up of the CDMO business, the company, in engagement with ThinkEquity as an advisor, expects to explore strategic alternatives for the potential monetization of PMI, thereby generating substantial additional capital to further enhance the company's growth. *We hold the belief that Pharmed Manufacturing Inc.'s underlying value surpasses the entire current market valuation of ProPhase Labs.*
- ProPhase Labs Partners with Forward Healthcare Consultants to Commercialize Breakthrough Esophageal Cancer Test** - In a recent strategic development, ProPhase Labs, Inc., has announced a strategic partnership with Forward Healthcare Consultants (FHC) to commercialize its innovative BE-Smart test for esophageal cancer. *This collaboration aims to leverage FHC's expertise in clinical validation and market access strategies, including coverage, pricing, and coding, as well as their strong connections within the healthcare industry.* ProPhase Labs is committed to advancing this potential billion-dollar esophageal cancer assay, which is positioned to fill a critical gap in cancer detection and diagnosis. The company emphasizes that the partnership will utilize FHC's extensive network and experience, which includes past successes in bringing similar diagnostic tests to market with significant commercial success. With FHC's support, ProPhase Labs aims to navigate the pathways to potential regulatory approval and widespread market adoption, enhancing its portfolio of healthcare solutions.
- Valuation** - With multiple developments in place across emerging business lines, ProPhase has transitioned from a traditional diagnostic company to an innovative healthcare service provider, with diversified capabilities in automated manufacturing, genomics, oncology, and AI-driven analytics. Each of these divisions is currently in different stages of development, progressing towards a monetization phase where they can contribute to potentially significant revenue generation and profitability. This strategic pivot not only diversified its portfolio but also enhanced its competitive edge in the rapidly evolving healthcare market. We believe that the next twelve months will likely be a key inflection period, with the company's efforts in these divisions beginning to yield tangible results in the form of significant revenue growth and improved profitability. We have updated our valuation model to reflect the updated recent financial results and re-assessed our SOTP approach, reiterating a valuation of \$21 per share, contingent on successful execution by the company.

Company Description

ProPhase Labs, Inc. (Nasdaq: PRPH) is a diversified diagnostic, genomics, and biotech company seeking to leverage its CLIA lab services to provide whole genome sequencing and research directly to consumers and build a genomics database to be used for further research. The company also operates a contract manufacturing subsidiary and offers the TK Supplements line of dietary supplements, which are distributed in food, drug, and retailer stores.

- Significant Progress Across Other Business Divisions** - Significant advancements and operational improvements are evident across other business divisions. Equivir and Legendz XL have transitioned to in-house production at Pharmed, enhancing efficiency and profitability. Particularly noteworthy is Equivir, which is poised for strong market performance owing to a strategic marketing campaign that leverages Nebula Genomics' extensive marketing infrastructure and the company's existing network spanning over 40,000 stores nationwide. Concurrently, Nebula Genomics has upgraded its consumer offerings with the newly enhanced "DNA Complete[®]" product, offering faster service, competitive pricing, and a more dynamic genetic user platform. The company's genomic database has expanded to include data from over 100,000 users from more than 130 countries, enriching its diversity and analytical depth. Additional services, such as genetic counseling and various strategic partnerships, are being pursued with a contract secured to offer genetic counseling, further augmenting the value of the genomic data. Amidst these advancements, maintaining rigorous data security remains a critical focus, with stringent cybersecurity measures in place to protect sensitive genetic information. *The company has also rolled out an extensive new marketing campaign, utilizing the expertise of leading industry influencers and managed by experienced marketing professionals known for their track record in developing global brands, aiming to substantially boost the company's visibility and market penetration.* Additionally, the company's Project ZenQ-AI is revolutionizing cancer research, utilizing the extensive genomic databases from ProPhase and the advanced diagnostic of BE-Smart. With training on comprehensive datasets provided by Nebula Genomics and BE-Smart, the AI excels in uncovering unique genomic relationships and patterns. These discoveries could significantly advance the development of new cancer therapies, specifically those involving antibody-drug conjugates.
- Nebula Genomics Launches "DNA Complete[®]" as Part of Major DTC Initiative** - Nebula Genomics is set to launch a significant new Direct-To-Consumer (DTC) initiative, following an eight-month development phase. The revamped product, now branded as "DNA Complete[®]," aims to revolutionize the genetic testing market by offering a comprehensive and user-friendly platform. The launch, anticipated to drive a new sales ramp in the near term, is backed by the expertise of Stu Hollenshead, former Chief Business Officer and Chief Operating Officer of Barstool Sports, and current President and Chief Revenue Officer of 10pm Curfew, a key player in the social media space. "DNA Complete[®]" will feature industry-leading pricing, faster turnaround times, and leverage Nebula's cutting-edge bioinformatics platform alongside a newly launched proprietary advanced Ancestry platform. The initiative also includes a robust marketing campaign featuring top influencers, under the guidance of Stu Hollenshead, who has a proven track record in building global brands. Nebula Genomics has expanded its genomic database to over 100,000 users from 130+ countries, ensuring the broadest diversity and the most comprehensive analysis available in the market. Additionally, the company has secured a contract to offer genetic counseling services, further enhancing its value proposition. Data security remains a top priority, safeguarded by world-class cybersecurity measures to protect sensitive genetic information.
- Short Term Volatility, But Future Vision Remains Consistent** - For the quarter ending June 30, 2024, ProPhase Labs reported a decline in net revenue, declining from \$13.2 million in 2023 to \$2.5 million. This reduction was largely attributed to a \$7.8 million decrease in diagnostic services revenue, and a \$2.9 million reduction in consumer products revenue as the company transitioned out of Covid Testing Business. Costs of revenue also decreased from \$6.8 million in Q2 2023 to \$2.9 million in Q2 2024, contributing to a shift from a gross profit of \$6.4 million (48.8%) to a gross loss of \$0.5 million (-19.2%). General and administrative expenses fell by \$2.7 million or 27.2%, primarily due to lower personnel costs and professional fees, while research and development expenses decreased by \$433,000 due to scaled-back product research activities. The company's operating cash burn for H1 of 2024 was \$9.94 million and concluded H1 with cash reserves of \$2.4 million. At the end of H1, the company had more than \$17 million in net working capital, providing a substantial cushion to support ongoing operations and strategic initiatives. Moreover, the company anticipates a potential financial turnaround in H2 2024 with significant scaling of PMI's operations, followed by the commercialization of BE-Smart Esophageal cancer test and Equivir (OTC). As these investments mature, management expects the company to stabilize financially and begin reaping the benefits of its strategic transformation. This could potentially lead to improved financial health in subsequent quarters and a return to more shareholder-oriented strategies, such as dividends and buybacks.

Company Overview

ProPhase Labs, Inc. (NASDAQ: PRPH), headquartered in Long Island, NY, operates through a range of subsidiaries to deliver diversified healthcare solutions. Since its inception in 1989, the company has expanded its reach across various sectors of health and wellness. Pharmed Manufacturing, one of these subsidiaries, is currently experiencing rapid growth and specializes in the production of non-GMO, organic, and natural-based products. Notably, Pharmed offers a wide range of over-the-counter (OTC) manufacturing services and consumer healthcare product development, including cough drops, lozenges, OTC drugs, and dietary supplements. As it actively expands into high-margin liquid fill products, Pharmed is planning significant increases in production capacity and is targeting exponential year-over-year revenue growth. Additionally, Nebula Genomics provides accurate, high-quality, and competitively-priced genomic solutions. Nebula Genomics is enhancing its global footprint through significant business-to-business partnerships. It offers comprehensive genetic testing services that analyze over 99% of human DNA, providing deeper insights than typical ancestry tests. Its proprietary bioinformatics platform, enhanced by top-tier cyber protection measures, delivers in-depth genetic health insights, including information on rare genetic mutations and ancestry, at competitive prices. Nebula also offers genetic counseling for direct-to-consumer customers, adding significant value to its genetic testing solutions. ProPhase is also advancing the commercial launch of the BE-Smart Esophageal Cancer Test, anticipated in the second half of 2024. This test is poised to potentially revolutionize diagnostics for Barrett's Esophagus with its detailed risk assessment model, currently showing over 90% sensitivity and specificity. Equivir, another product of ProPhase Biopharma, has shown promising results in clinical trials, suggesting a potentially significant reduction in upper respiratory incidents. With comprehensive results expected soon, Equivir is preparing for a robust market introduction, aiming for extensive distribution and a strong market presence. Together, these ventures represent ProPhase Labs' strategy to pioneer advancements across multiple fronts of the healthcare sector, aiming to expand its leadership and impact on global health.

ProPhase Labs, Inc. operates through its subsidiaries to offer a wide range of healthcare solutions and products, from organic health products to advanced genomic diagnostics, continually expanding with innovative solutions like the Esophageal Cancer Test and respiratory health advancements



Exhibit 1: The Five Divisions of ProPhase Labs. Source: Company Presentation

ProPhase Labs began with a focus on developing, manufacturing and marketing innovative pharmaceutical products. In its early years, the company primarily focused on developing drugs for the treatment of common health conditions, such as allergies and respiratory diseases. However, in the late 1990s, the company shifted its focus to over-the-counter (OTC) health and

wellness products, recognizing the growing demand for convenient and accessible health solutions. Of late, the company has acquired many companies from diverse domains, thus expanding its presence in the healthcare industry. Nebula Genomics, ProPhase Diagnostics, Inc., ProPhase BioPharma, Inc., and TK Supplements, among others, are some of the better-known names in the respective industries and have helped ProPhase Labs expand its product portfolio. Nebula Genomics, Inc's acquisition brought a whole array of genome sequencing and related technology into the company's portfolio of offerings. It comprises a comprehensive methodology for analyzing entire genomes, including the genes and chromosomes in DNA whose data can help in identifying, analyzing, and taking preventive measures for breaking the progression of various inherited disorders. Eventually, the data acquired from sequencing can be adapted to develop targeted therapeutics.

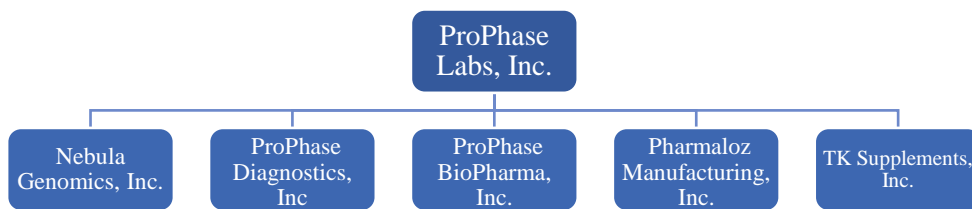


Exhibit 2: Company Structure. Source: Company Filings, Diamond Equity Research

Foraying into biotechnology, the company formed a wholly-owned subsidiary, ProPhase BioPharma, Inc, which focuses on creating and formulating new compounds. The IP of the company includes Equivir and Linebacker, of which it possesses exclusive worldwide development and commercialization rights. Equivir, a dietary supplement available OTC and Equivir G, available by prescription, has shown potential against various serious viral outbreak-associated viruses.

ProPhase BioPharma – Developing Novel Diagnostic and Therapeutic Products

The wholly-owned subsidiary was created to diversify the company's portfolio, tap into the growing potential of these industries, and leverage existing resources and expertise to develop innovative solutions for various medical conditions, such as viral infections and cancer. This strategic decision to create the biopharma division is expected to foster synergies with other business divisions by leveraging existing resources, expertise, and infrastructure. The company unveiled two licensing agreements for Equivir (dietary supplement) and Equivir G (Rx), both broad-spectrum antivirals and Linebacker LB-1 and LB-2, small-molecule PIM kinase inhibitors which also encompasses the current portfolio of licensed compounds under development. Additionally, the company acquired the exclusive global rights to BE-Smart Esophageal Pre-Cancer diagnostic screening test.

The biopharma division aims to enhance synergies with other divisions, utilizing existing resources and expertise

BE-Smart Esophageal Pre-Cancer Diagnostic Screening Test: Targeting a Large Underserved Market

Seeking to acquire proprietary diagnostic technology that is synergistic with its laboratory diagnostic business, ProPhase Labs Inc. signed an asset purchase agreement to [acquire exclusive global rights](#) to BE-Smart Esophageal Pre-Cancer diagnostic screening test and related intellectual property assets. The transaction, which closed in January 2023, had an approximate value of \$4.5 million, comprising \$3.5 million in cash and \$1 million in ProPhase common stock. Moreover, contingent payments amounting to an additional \$2 million in stock and royalties are to be executed upon the successful commercialization of the test. The BE-Smart test is a diagnostic screening tool aimed at the detection of esophageal cancer before it develops, particularly for patients with Barrett's Esophagus (BE), a condition where the esophageal lining becomes damaged by acid reflux, leading to thickening and redness which increases the risk of developing esophageal adenocarcinoma.

Esophageal cancer (EC) is marked by high mortality, unfavorable prognosis at diagnosis, and substantial histopathological differences depending on the geographic region. EC ranks as the eighth most prevalent cancer globally and the sixth leading cause of cancer-related fatalities, with a 5-year survival rate below 25%.¹ Early-stage EC typically does not present specific symptoms. The two main histological subtypes, esophageal squamous cell carcinoma (ESCC) and esophageal adenocarcinoma (EAC) make up over 90% of EC cases. A retrospective study examining the epidemiology and outcomes of 23,804 EAC and 13,919 ESCC patients found that the majority were diagnosed at stage IV (classified as distant and metastatic), resulting in the worst outcomes.¹ The 5-year survival rate for distant esophageal cancer is a mere 6%. This late-stage diagnosis leading to poor prognosis and significantly reduced survival rates highlights the urgent need for effective screening strategies to enable early detection of ESCC and EAC, ultimately reducing morbidity and mortality. The BE-Smart Test has the potential to be a standard and effective screening test while drastically improving patient outcomes and survival rates.

The BE-Smart test has been tested on over 200 human samples by mProbe, in collaboration with Dr. Christopher Hartley, Dr. Joe Abdo, and Mayo Clinic. The test has shown more than 99% accuracy in identifying critical differences in cell abnormalities related to esophageal cancer.² This accuracy was also confirmed in a separate study using RNA sequencing data. In addition, the test was 100% accurate in detecting invasive cancer in biopsy samples that did not show clear signs of cancer when analyzed using traditional methods.² The accuracy of the test was later verified through follow-up testing using other methods, like surgery or endoscopic ultrasound.

Equivir Line of Products

Equivir is a blend of FDA-approved polyphenols (Myricetin, Hesperidin, and Piperine), designated as Generally Recognized as Safe (GRAS), designed to be taken in capsule form, either as a multivitamin or at the onset of symptoms. It has been hypothesized and is currently being


Equivir, a blend of FDA-approved, GRAS-designated polyphenols (Myricetin, Hesperidin, Piperine), is a capsule taken as a multivitamin or when symptoms begin

¹ Then EO, Lopez M, Saleem S, Gayam V, Sunkara T, Culliford A, Gaduputi V. Esophageal Cancer: An Updated Surveillance Epidemiology and End Results Database Analysis. World J Oncol. 2020 Apr

² Company Press Release

evaluated in a multi-center trial that the composition is believed to block the entry of viruses, such as influenza, rhinovirus, Ebola, and SARS-COV2, into host cells, thus preventing infection and replication. While Equivir is under assessment as an over-the-counter (OTC) product, Equivir G, a blend of polyphenols akin to Equivir with the addition of Gallic acid, is being investigated as a prescription-based antiviral treatment.

EQUIVIR AND EQUIVIR G







			
<p>MYRICETIN Polyphenol found in vegetables, fruits, nuts, berries, tea, and red wine</p> <p>Proposed function: Point-source intracellular inhibition Hypothesized to Inhibit TNF-α, which drives ICAM-1 expression Potentially Down regulates</p> <p>↓ ICAM-1 ↓ Helicase ↓ Neuraminidase</p>	<p>HESPERIDIN Polyphenol found in citrus fruits</p> <p>Proposed function: Extracellular inhibition Hypothesized to Partially migrates to skin, lung, and nasal tissue</p> <p>Potentially Down regulates</p> <p>↓ TNF-α ↓ ICAM-1 ↓ VCAM-1 ↓ ATPase</p> <p>↓ IL-1β ↓ IL-6 ↓ IL-8 ↓ IL-12</p>	<p>PIPERINE Alkaloid found in black pepper</p> <p>Proposed function: Increases trans-membrane permeability/bioavailability</p>	<p>GALLIC ACID Classified as a Phenolic acid found in pomegranate extract, sumac, witch hazel and grape seed extract.</p> <p>Proposed function: Adhesion molecule and cell infiltration, has bacteriostatic and antioxidant activities, MAPK and NF-κB signaling pathway</p>

Exhibit 3: Polyphenols Found in Equivir and Equivir G. Source: Company Presentation

Linebacker Line of Products

ProPhase BioPharma, Inc. (PPIO) has entered into a licensing agreement for the Linebacker portfolio (LB-1 and LB-2), consisting of two patented small molecule PIM kinase inhibitors with substantial potential across various therapeutic areas, including cancer, inflammation-related conditions or symptoms, and memory-related syndromes, diseases, or symptoms such as dementia and Alzheimer's disease. Linebacker is a versatile therapeutic platform aimed at addressing metabolic, neurological, cancerous, and infectious diseases. This platform was inspired by the U.S. Defense Advanced Research Projects Agency (DARPA) Panacea Project, which focuses on providing innovative, multi-target therapeutics for unaddressed physiological needs. Linebacker is a modified polyphenol derived from Myricetin, a widespread plant-based flavonoid known for its potent antioxidant, anticancer, antidiabetic, and anti-inflammatory properties. A growing body of evidence has reported that myricetin supplementation displays therapeutic activities in a lot of nervous system disorders, such as cerebral ischemia, Alzheimer's disease, Parkinson's disease, epilepsy, and glioblastoma.³ Mechanistic studies have shown that inhibition of oxidative stress, cellular apoptosis, and neuroinflammatory response are common mechanisms for the neuroprotective actions of myricetin.³

PIM kinase inhibitors are a class of therapeutic agents that target the PIM kinases, a family of serine/threonine kinases. PIM kinases consist of three isoforms: PIM-1, PIM-2, and PIM-3. These

³ Li J, Xiang H, Huang C, Lu J. Pharmacological Actions of Myricetin in the Nervous System: A Comprehensive Review of Preclinical Studies in Animals and Cell Models. Front Pharmacol. 2021 Dec 16

kinases are involved in various cellular processes, including cell cycle progression, cell survival, and proliferation. PIM kinases are overexpressed in various types of cancers, such as hematological malignancies and solid tumors, and contribute to cancer cell survival, drug resistance, and tumor progression. Inhibition of PIM kinases has been recognized as a promising therapeutic strategy for the treatment of various cancers. PIM kinase inhibitors act by blocking the activity of PIM kinases, which in turn can lead to the suppression of cancer cell growth & survival and enhancement of the efficacy of other anticancer therapies. These inhibitors have shown potential in preclinical and clinical studies for the treatment of different cancer types and are being actively investigated for their role in cancer therapy.

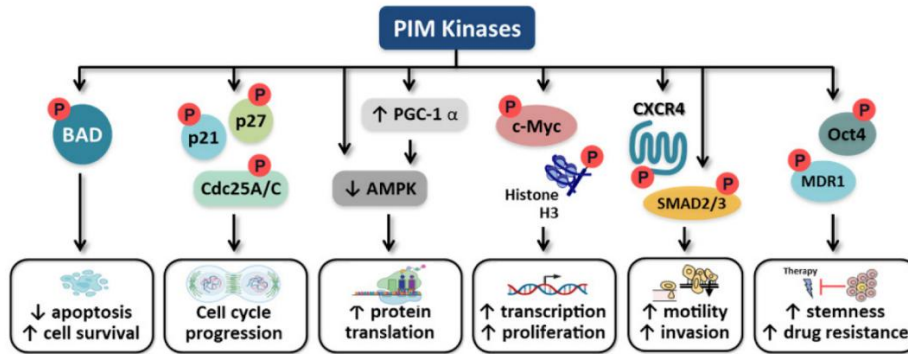


Exhibit 4: PIM Kinases Pathways of Carcinogenesis. Source: [Julson JR et al.](#)

Nebula Genomics

ProPhase Labs' acquisition of Nebula Genomics marks a strategic move towards precision medicine and the integration of genomics in healthcare. This strategic acquisition took place on August 10, 2021, and is a part of ProPhase's goal to empower individuals in managing their health through DNA analysis. Nebula Genomics brings cutting-edge DNA sequencing technology and molecular laboratory prowess to the table. Their advanced whole genomics sequencing (WGS) and testing technologies enable in-depth exploration of human genes and chromosomes. Nebula, a company with significant brand equity, has gained recognition from major media outlets and is HIPAA and GDPR compliant. Successfully selling in over 130 countries, Nebula has achieved 67% global penetration in WGS market. Their robust B2B pipeline contributes to 30% of their whole genome sequencing volume, supplying clinical-grade data to research institutions, CROs, healthcare systems, and pharmaceutical offices. This strong global presence and B2B sales have helped create a digital biobank with over 250 trillion genomic data points. Additionally, Nebula Genomics is poised to significantly enhance its marketing and go-to-market (GTM) strategy by collaborating with best-in-class marketing and advertising partners known for their expertise in scaling digital health products. ProPhase Labs is set on a mission to make personal genome sequencing more accessible and affordable. They aim to provide clients with extensive genetic insights that could transform their lives, from detecting hereditary disorders to forecasting disease risk and even understanding the genetic mutations driving cancer progression.

Nebula Genomics offers advanced DNA sequencing and molecular lab expertise. Their whole genomics sequencing and testing technologies enable in-depth exploration of human genes and chromosomes

The company aims to integrate Nebula's whole genome sequencing (WGS) services with ProPhase's clinical diagnostic testing services, including its CLIA-certified laboratories, in an effort to yield synergistic benefits, boost sales and reduce cost overlapping. Additionally, by

utilizing its wide-reaching distribution network that encompasses over 40,000 food, drug, and mass retail stores, ProPhase endeavors to expand the availability of Nebula's genomic sequencing services to a larger audience. Initial retailers include the three largest pharmacy chains and two of the three largest mass retailers in the U.S. The company is also investigating research applications for its genomics testing services, establishing collaborations with universities, and providing them with more accessible, low-cost WGS options.

Genomic Solutions Providing Crucial Insights

Nebula Genomics' solution is driven by the innovations of George Church, Ph.D., a Professor of Genetics at Harvard Medical School and Chairman of the company's Scientific Advisory Board. Dr. Church has been at the forefront of developing various DNA sequencing methods, including molecular multiplexing approaches that enable next-generation sequencing (NGS) and nanopore sequencing. Nebula offers a comprehensive solution for whole genome sequencing, providing valuable insights to consumers and creating a robust data set for research purposes.

Option	Price	Accuracy	Key Features
Deep [®] Whole Genome Sequencing	\$249 (62% OFF from \$649)	Best value	<ul style="list-style-type: none"> Deep ancestry report Detects all predispositions Detect rare genetic mutations High accuracy[®] Requires Nebula Membership
Ultra Deep [®] Whole Genome Sequencing	\$899 (59% OFF from \$2184)	Ultra High accuracy	<ul style="list-style-type: none"> Ultra deep ancestry report Detects all predispositions Detect rare genetic mutations Ultra high accuracy[®] Requires Nebula Membership
Standard Whole Genome Sequencing	\$99 (29% OFF from \$299)		<ul style="list-style-type: none"> Basic ancestry report Detects common predispositions Requires Nebula Membership

Exhibit 5: Nebula Genomics Solutions. Source: Company Website

- Affordable Direct-to-consumer WGS:** Nebula Genomics is the first company to bring the cost of whole genome sequencing below \$300, making it more accessible to a broader range of consumers. The company's current cost for whole genome sequencing tests is priced at \$249.
- Comprehensive Genetic Data:** The company's whole genome sequencing test decodes approximately 6.4 billion base pairs of the human genome, generating high-quality data that surpasses most competing services. Nebula's tests sequence each position in the whole genome an average of 30 times which is the current gold standard for accuracy in genetic sequencing.
- Personalized Reports and Exploration Tool:** Nebula Genomics provides over 300 personalized reports based on an individual's genomic profile, accessible via a secure online portal. Additionally, the company offers exploration tools like a gene browser and gene analysis tool, enabling customers to further analyze and understand their genetic data.

Leveraging Ever-Expanding Nebula Library to Build a Subscription-Based Business Model

The company’s whole genome sequencing test is just one aspect of its offering. Committed to making cutting-edge scientific discoveries easily accessible and comprehensible, Nebula Genomics has introduced the Nebula Research Library - a repository of research publications and genomic discoveries. Updated weekly, this library offers personalized reports based on the latest genetic findings and features over 300 genome-wide association studies (GWAS). The Nebula Research Library provides guidance on understanding the outcomes of genome-wide association studies, such as polygenic scores that represent the impact of identified genetic variants. Nebula Genomics provides customers with up-to-date genomic findings through a subscription model, offering updated reports and new insights based on the latest scientific research and adding these discoveries to the Nebula library for personalized information on genetic traits such as ancestry and health. Furthermore, the subscriber also enjoys unlimited use of genome exploration tools and premium support provided by geneticists.

Although mandatory, the company's subscription cost is more than justifiable as it offers customers a dynamic and constantly evolving understanding of their genetic traits. By ensuring access to the latest research findings, cutting-edge features, and tools, the subscription model empowers individuals to make well-informed decisions based on up-to-date genetic insights. Furthermore, this approach supports ongoing research in the field, driving new discoveries and enhancing the value provided to customers over time.

Partnership With G42 HealthCare

Nebula Genomics, Inc., previously announced a collaboration with G42 Healthcare aimed at leveraging each company's strengths to create a synergistic effect on their genomic sequencing capabilities, global healthcare offerings, and market reach. G42 Healthcare is a prominent Abu Dhabi-based health-tech organization utilizing AI and advanced medical technologies with a focus on tapping into the possibilities of customized and preventive care to revolutionize the conventional healthcare framework. The combination of Nebula Genomics' expertise in direct-to-consumer whole genome sequencing and G42 Healthcare's advanced sequencing facilities and AI technologies is expected to result in a more efficient and accurate genetic testing process, giving both companies a possible edge over competitors. Additionally, the collaboration facilitates market expansion for Nebula Genomics into high-growth, underserved markets like the UAE and the Middle East. G42 Healthcare is a global leader in whole genome sequencing, particularly in the UAE, with the goal of sequencing one million residents as mandated by the Emirati Genome Program. They have currently completed sequencing for about 200,000 individuals. This collaboration allows Nebula Genomics to benefit from G42 Healthcare's advantageous pricing on consumables due to their high volume of sequencing, resulting in more efficient and cost-effective processing of specimens. Furthermore, the partnership is expected to enable operational efficiencies and cost savings through the sharing of genomic data insights, best practices, and advanced certifications, which can be passed on to customers accelerating sales growth.

ProPhase Labs has substantially expanded its headquarters in Garden City, New York, and established a new genomics laboratory equipped with top-tier next-generation sequencing technology. This development allows the company to conduct whole genome sequencing and provide an extensive range of genetic testing services for both clinical and research objectives. In

Nebula Research Library is a regularly updated repository of research publications and genomic discoveries. It offers personalized reports from over 300 genome-wide association studies (GWAS) and guidance on understanding outcomes like polygenic scores, representing the impact of identified genetic variants

conjunction with building out the state of the art lab, Nebula continues to enhance its partnership with G42 thereby offering nearly unlimited capacity to allow for the rapid growth of both its B2B and DTC businesses. In conclusion, the alliance between Nebula Genomics and G42 Healthcare represents a strategic step towards a future where genomic data plays a crucial role in shaping healthcare decisions. The companies' combined expertise in advanced sequencing technologies and diagnostics positions them to offer personalized and accurate genetic testing services to a wider audience. Additionally, by possessing the most advanced and sophisticated genome sequencing facility in the East Coast region, ProPhase has the potential to establish itself as the premier destination for genetic sample processing collected by all 'virtual' companies across the United States.

Contract Manufacturing - Pharmaloz Manufacturing, Inc.

ProPhase Labs, Inc’s wholly-owned subsidiary, Pharmaloz Manufacturing, Inc. (PMI), serves as a full-service contract manufacturer and private label developer specializing in non-GMO, organic, and natural-based cough drop lozenges, OTC drugs, and dietary supplement products. The company’s 60,000 sq. ft. climate-controlled facility on 12 acres operating under FDA 21 CFR 210 & 211 guidelines provides the ability to offer products for diversified needs. The acquisition of new equipment throughout 2023 has significantly increased capacity and profitability leading into 2024. The company is also in the midst of a more massive expansion of its lozenge manufacturing business for 2024 and 2025. Altogether, these expansion initiatives are expected to lead to a 350% increase in capacity for 2024 as compared to 2022 with even more growth projected in 2025. This increased capacity aligns with the growing demand for PMI's products and services, allowing for potential revenue growth. Moreover, with the scaling up of the CDMO business, the company, in engagement with ThinkEquity as an advisor, expects to explore strategic alternatives for the potential monetization of PMI, thereby generating substantial additional capital to further enhance the company’s growth. We hold the belief that Pharmaloz Manufacturing Inc.’s underlying value surpasses the entire current market valuation of ProPhase Labs.

Pharmaloz Manufacturing, Inc. (PMI), a wholly-owned subsidiary of ProPhase Labs, is a full-service contract manufacturer and private label developer for non-GMO, organic, and natural-based cough drops, OTC drugs, and dietary supplements

TK Supplements – Utilizing Core Competencies

The TK Supplements product line of the company focuses on promoting better health, energy, and sexual vitality. The product line includes two key offerings: Legendz XL, a male sexual enhancement supplement, and Triple Edge XL, an energy and stamina booster. The company's commitment to using high-quality, research-based ingredients demonstrates a dedication to product efficacy and customer satisfaction. This approach can contribute to a strong brand reputation, which may result in increased sales and customer loyalty. The distribution channels for Legendz XL are promising, with availability in major retailers like Rite Aid, Walgreens, CVS, and Walmart, as well as through e-commerce platforms. The recent expansion of distribution to CVS and Walmart indicates growing market acceptance and potential for increased sales. Triple Edge XL is also gaining retailer acceptance, with a recent restaging strategy at CVS. By reducing the package size from 56ct to 20ct, the retail price became more competitive, resulting in a double-digit increase in consumer sales and a 40% expansion in the number of stores carrying the product. Based on this performance, Triple Edge XL is under review for authorization in other major pharmacies, which may lead to further growth in distribution and sales.

The global dietary supplements market is expected to grow at a CAGR of 8.40% in the next decade, driven by factors such as rising health awareness, an aging population, and increasing disposable income in emerging markets

Appendix

Income Statement	FY2022 A	FY2023 A	FY2024 E	FY2025 E	FY2026 E
Net sales	122,647.0	45,236.0	59,839.9	138,264.1	196,652.9
Cost of sales	(51,993.0)	(28,997.0)	(38,372.7)	(72,051.3)	(101,813.5)
Gross profit	70,654.0	16,239.0	21,467.2	66,212.8	94,839.4
Operating expenses					
Diagnostic expenses	(12,022.0)	(1,932.0)	-	-	-
General and administrative expenses	(34,385.0)	(34,502.0)	(28,473.1)	(48,483.8)	(58,151.8)
Research and development expense	(652.0)	(1,418.0)	(1,196.8)	(4,147.9)	(3,933.1)
Income from Operations	23,595.0	(21,613.0)	(8,202.6)	13,581.1	32,754.5
Interest income	153.0	78.0	71.0	309.3	49.6
Interest expense	(764.0)	(1,275.0)	(1,112.2)	(1,112.2)	(1,112.2)
Change in fair value of investment securities	(76.0)	-	-	-	-
Other income	-	10.0	-	-	-
Profit before exceptional items, extraordinary items and tax	22,908.0	(22,800.0)	(9,243.8)	12,778.2	31,691.9
Impairment of secured promissory note receivables	-	-	-	-	-
Employee separation cost	-	-	-	-	-
Profit before tax from continuing operations	22,908.0	(22,800.0)	(9,243.8)	12,778.2	31,691.9
Income tax (expense) benefit	(4,445.0)	6,018.0	-	(2,683.4)	(6,655.3)
Net earnings including noncontrolling interests	18,463.0	(16,782.0)	(9,243.8)	10,094.8	25,036.6

Exhibit 6: Income Statement Snapshot. Source: Diamond Equity Research

Risk Factors

The success of ProPhase Labs Inc's business is dependent on its ability to navigate a range of risks and uncertainties associated with the healthcare industry. Some of the key risks that could impact the company's financial performance and operations include the following:

- **Product Liability Risks:** ProPhase Labs Inc may face product liability claims if its products cause harm to consumers. While the company has product liability insurance in place, any successful claims against its branded products or third-party products exceeding the insurance coverage could result in increased expenses and impact its reputation with customers negatively. This would ultimately have a material adverse effect on its business, financial position, and top-line numbers.
- **Cybersecurity Risks:** ProPhase Labs, Inc. receives and stores substantial personal information and genetic data of both its customers and employees, which may be vulnerable to cyber threats, such as data breaches, hacking, and ransomware attacks. These threats could compromise the security of its data and systems, leading to financial losses and reputational damage.
- **Technological & Competitive Risks:** The healthcare technology market is highly competitive, and ProPhase Labs Inc must compete with other companies that are also developing and implementing new technologies. ProPhase Labs Inc's success may depend on its ability to develop and implement new technologies, such as digital health platforms and telemedicine, to improve healthcare outcomes and patient care. Any failure to adapt to changing technologies could harm the company's competitiveness and profitability. These challenges could delay the launch of new products or services, increase costs, or impact the quality of its products and services.
- **Acquisition and Integration Risks:** ProPhase Labs Inc pursues acquisitions as a means of growing its business and expanding its market share. It may face risks associated with acquisitions and integrations, such as the failure to integrate acquired businesses, the loss of key personnel, and the failure to achieve expected synergies. This could impact employee morale, productivity, and the ability to achieve expected results.
- **Regulatory Compliance Risks:** Being a pharmaceutical and diagnostic company, ProPhase Labs Inc. is subject to stringent regulations from the FDA and HIPAA. The company must comply with FDA regulations to ensure the safety and effectiveness of its products and to obtain regulatory approval for new products. The company, as a provider of healthcare products and services, must also comply with HIPAA regulations to protect the privacy and security of patient information. Failure to comply with these regulations or obtain necessary approvals can have significant impacts on business operations, the company's reputation, and the ability to operate in the healthcare industry.

These risk factors are not comprehensive for full risk factors, please review ProPhase Labs Inc's relevant SEC filings with risk factors.

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